

COST: a European Coordination Framework

Eva M. Klaper*
Swiss National COST Coordinator

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What have topics as different as 'metal compounds in the treatment of cancer and viral diseases' or 'protein-lipid interaction', or 'coordination chemistry in the context of biological and environmental studies' or 'modelling of chemical systems' or 'surface chemistry' or 'metals used in medicine' or 'nanotechnology' in common? They are all part of the same science, namely chemistry and chemical engineering and they are being studied in the frame of a Europe-wide cooperation programme. Such a framework typically addresses areas of research where joint activities can bring benefit and added value to the participating scientists as well as to their home countries. This framework is COST (Cooperation in the Field of Scientific and Technical Research).

COST – founded in 1971 at a Ministerial Conference in Brussels – promotes the concept of 'bottom up' research whereby researchers from any of the 32 member states can initiate a COST Action, a kind of umbrella involving several individual projects in different countries. COST offers – especially to young scientists – easy access to state-of-the-art information produced in Europe's leading research institutes and a valuable contact forum for developing new partnerships and enhancing international recognition.

The cooperation in the framework of COST is based on several principles: the working unit in COST is a research Action, which coordinates the national research activities (projects) on an European level, each Action is managed by a management committee, scientists from all member states can propose new COST Actions, every member state is free to decide about participation in a certain COST Action (à la carte participation) and research is financed nationally by each member state according to its own rules; administration costs of the Europe-wide cooperation are paid by a COST fund. COST, therefore, provides a simple mechanism with light formalities to set up broad-based research projects with participants from several European countries.

Chemistry has been a COST domain since 1989 and was initiated following a French proposition to install a technical committee for Chemistry. This technical committee started its work in October 1990 by developing a strategic plan for chemistry research within Europe and by identifying a number of key topics. The first seven chemistry Actions covering the selected topics started in 1992. Up to now there has been a total of 22 chemistry Actions, 15 of which are operational today. 24 out of 32 COST countries participate in COST chemistry Actions and there are more than 600 research groups involved in the COST chemistry domain. COST chemistry Actions represent, therefore, a major European collaborative research effort in this domain. The very pronounced demand for international Europe-wide cooperation in fundamental chemistry research is at least partly covered through this framework of COST Actions.

Chemistry is not only a fundamental science with the objective of understanding the laws governing the behaviour and the transformations of matter at the atomic or molecular level, it is also an applied science trying to control transformations and processes to invent new chemical species. The production and sale of chemicals constitutes one of the important strengths of Europe's economy, and chemistry plays an essential role in developing high-technology products, in agrochemistry, biotechnology, pharmacy, for information technology and advanced materials. To foster these strengths of European research and industry, it is highly desirable that every possible support is given to cooperation and coordination of national research activities in international networks.

Based on the needs of the researchers, COST Chemistry has also initiated together with four other European organisations for chemistry a forum called 'AllChemE' in which COST plays an important role. Since 1997 AllChemE represents the European Scientific Community in the field of chemistry and aims at promoting chemical sciences and technologies all over Europe. The present issue of CHIMIA provides you with an overview of some of the activities in eight running Actions in COST chemistry. Ten internationally recognised scientists presented their projects at the 2nd Swiss COST Chemistry Symposium held in Basel on October 15, 1999 at the ILMAC 99 Trade Fair. In addition, a number of students used the opportunity to demonstrate their work in poster presentations. Meetings like this are a regular venue on the timetable of a COST Action and enable the involved scientists to exchange results and ideas, to plan future work or to introduce their students to the international scientific community.

*Correspondence: PD Dr. E.M. Klaper
Federal Office for Education and Science
International Research Programs – COST
Hallwylstrasse 4
CH-3003 Bern
Tel.: +41 31 322 96 67 (direct)
Tel.: +41 31 322 96 95 (Secretariat)
Fax: +41 31 322 78 54
E-Mail: eva.klaper@bbw.admin.ch
www.admin.ch/bbw